On-farm crop feed value analysis can aid dairy farmers

BY DICK ANGLESTEIN

UNIVERSITY PARK — As a dairy farmer, would any of the following possibilities be of interest for your operation?

—Before turning the cows out into summer pasture, you know the nutritional value of the grass they'll be eating and how it can be fit into the herd's overall feeding program.

—In the time it takes to connect the harvester to the tractor, you can be told the feed value of the orchard grass or small grains you'll be chopping.

—It's late winter and you're low on baled hay. Deciding to buy some alfalfa at the nearest hay market, you walk down the line of trucks on which is posted the protein and TDN content of each load, along with its particular hay grade.

—You have a mixed field. On the higher, better drained section the alfalfa looks pretty good; while there's predominantly grass in the lower, wet area. In a relatively few minutes, you know the difference in value of the two crops and what each might require in supplements for your dairy herd.

All of these on-farm or on-market determinations of feeding value of both harvested crops and those still in the field are now possible with a new mobile van version of infrared crop testing equipment developed at Penn State.

Not only can the testing equipment now be taken to the crop, greatly increasing its versatility of use and benefit to individual farmers, but the results of the testing are available almost instantaneously, ranging from two to 10 minutes, depending on the crop involved.

The testing equipment, called an infrared spectro computer, has been developed, tested and utilized over the past five years by ag researcher John Shenk and associates at Penn State. The mobile testing van, which contains a smaller, more compact instrumentation package, just started to be used this spring.

The instrument scans grains and forages and within several minutes determines their nutrient content, such as protein and fiber, total digestible nutrients and percent of dry matter.

The scanner is expected to save considerable time and expense and gradually replace the present technique of chemical and mathematical analysis.

The mobile van was located at the Belleville hay

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Mobile unit of Penn State's infrared testing equipment is set up at Belleville hay auction to analyze forage feeding value of baled hay bieng sold at the market. Van can also be used for on-farm analysis of pasture grass, crops being gree chopped, other high moisture, as well as hay an cereal grains.